

**RHODE ISLAND ECONOMIC DEVELOPMENT CORPORATION**  
**MEETING OF THE SCIENCE & TECHNOLOGY ADVISORY COUNCIL**  
**PUBLIC SESSION**  
**January 25, 2008**

The Rhode Island Science & Technology Advisory Council (“STAC”) met on Friday, January 25, 2008 in Public Session in Hearing Room 313 of the Rhode Island State House, Providence, Rhode Island pursuant to notice of the meeting to all Members and public notice of meeting, a copy of which is attached hereto, as required by applicable Rhode Island Law.

The following Members were present and participated throughout the meeting as indicated: Peter Alfonso, Clyde Briant (Co-Chair), David Hibbitt, Saul Kaplan, Arthur Klein, Richard Nadolink, Thomas Rockett, Donald Stanford, Jeffrey Seemann (Co-Chair).

Members absent were Paul Choquette, Kimball Hall, Margaret Leinen and Thomas Ryan.

Also present were Lt. Governor Elizabeth Roberts, members of the General Assembly and RIEDC’s staff. Drs. Briant and Seemann presided over the meeting.

**Welcome**

Dr. Briant called the meeting to order at 10:00 a.m. by welcoming the many special guests in the room, including those invited to present reports to the Council and the awardees of the 2008 RI Research Alliance Collaborative Grant. He also introduced a new Council member, Dr. Peter Alfonso, Vice President for Research and Economic Development at the University of Rhode Island. This open seat was created when Dr. Joseph Amaral resigned. Dr. Briant thanked Dr. Amaral for his guidance and counsel which was tremendously important during the initial critical years of setting up the Council and welcomed Dr. Alfonso.

Dr. Seemann recognized legislative leaders Senator William Walaska and Representatives Eileen Naughton and Raymond Church who have worked in a collaborative, bi-partisan manner to support the initiatives of the Council. He thanked them for understanding the importance of the Council’s work and for their continuing commitment to its mission. He also introduced Lt. Governor Elizabeth Roberts who

stressed the important role science and technology plays in building the type of high wage, knowledge-based economy Rhode Island needs.

### **Approval of Minutes**

Citing no changes, upon a motion duly made by Mr. Kaplan and seconded by Dr. Rockett, the minutes of the October 4, 2007 STAC meeting were accepted.

### **State EPSCoR Report**

Dr. Briant introduced the next order of business which pertained to the RI State EPSCoR Governance Committee. Established in February 2004, RI EPSCoR works to build partnerships between state government, institutions of higher education and industry to effect lasting improvements in statewide research infrastructure and national R&D competitiveness. Since the October 2007 meeting, STAC has replied to two federal RFP's, one from the Department of Defense and one from the Department of Energy. In each case, the State EPSCoR office used a competitive review process to solicit and select proposals from Rhode Island researchers based on merit review, appropriateness of the approach or method, potential for infrastructure development at the state level and increased collaboration with other universities and industry. The State EPSCoR office also insured that the selected proposals are aligned with the stated needs expressed in the RFP and with Rhode Island's established goals for stimulating competitive research capabilities. Awardees are selected from national pools. Funded proposals will be announced this spring.

### **Report on 2007 Initiatives**

Dr. Briant noted that 2007 was a banner year for STAC. In just 12 months the Council saw the formal launch of the University of Rhode Island Commission for Research and Innovation, the first implementation of the Innovation Tax Credit, expansion of STAC's Rhode Island Research Alliance initiative, and a second round of competitive grants awarded via the Alliance's Collaborative Research Award program.

In 2007 STAC also worked to create opportunities for Rhode Island researchers to connect, share ideas and learn from national experts. In support of this agenda, STAC sponsored an inaugural collaborative research symposia featuring presentations by deputy director of the National Science Foundation Dr. Kathie Olsen and President of the State Science and Technology Institute Dan Berglund, invited Information Technology and Innovation Foundation president Robert Atkinson to Rhode Island to discuss results from the *2007 State New Economy Index* and brought Michael Cassidy, CEO of the Georgia Research Alliance, to Rhode Island to present "best practices" for developing a successful statewide research alliance.

Dr. Briant noted that Robert Flanders and Saul Kaplan were present to provide reports on the three primary initiatives.

**URI Commission:** Hon. Robert G. Flanders, Jr., Chair of the URI Commission for Research and Innovation and commission consultant Christine Heenan of Clarendon Group presented a progress report. The Commission is charged with proposing specific actions to strengthen the position of the University of Rhode Island as a nationally competitive public research university and a key institution in Rhode Island's effort to strengthen its innovation economy. In the past few months, the Commission has engaged in a data collection stage, conducting primary research through interviews of research leaders and key URI constituents and secondary research through the gathering of information on best practices and qualitative data on peer and peer aspirant institutions. Through this, the Commission has identified key indicators of research excellence and the necessary preconditions for achieving excellence. The next Commission meeting is scheduled for January 30, 2008.

**Innovation Tax Credit:** Mr. Saul Kaplan reported that in November 2007, the first batch of applications were reviewed and six companies received pre-approval from the EDC Board to seek new investments. All six companies with pre-approval now are actively using the incentive to attract new investment into the companies. The tax credit is an excellent example of how new tools can be used to attract investment that is key to promoting growth and new company creation. Rhode Island must continue with its efforts to create a toolkit of updated programs that more accurately reflect businesses' needs for sites, workforce and growth capital.

**RI Research Alliance Collaborative Grant Awards:** Mr. Kaplan presented a summary of the collaborative grant program. In 2006, STAC urged lawmakers to advance the state's research and development platform by promoting collaboration across our academic and commercial research organizations. In response to this recommendation, Rhode Island invested \$1.5 million in collaborative research funding through creation of the Rhode Island Research Alliance.

In its first year of operation, the Research Alliance awarded collaborative grants to eight teams of 32 scientists from 15 research institutions pursuing collaborative projects in medicine, engineering, chemistry, biology, oceanography and environmental science. Proof of the program's catalytic nature came in August when one of the recipients received a grant from the National Institutes of Health totaling \$1.4 million to continue their pioneering testicular cancer research. This grant represents close to a 100% return to the state on the initial investment.

Mr. Kaplan then introduced Dr. Karen Kerman of Hasbro Children's Hospital and Dr. Dave Durfee of Bay Computer Associates, whose team is developing prototypes that have the ability to revolutionize neuromuscular therapy in children with disabilities, to provide a demonstration of the rehabilitation device. Working with colleagues from the Rhode Island School of Design, Meeting Street School and Brown University, the team

used the Collaborative grant funding to conduct clinical trials that are crucial to demonstrating efficacy of the device and securing follow-on funding.

Following the presentation, Mr. Kaplan announced that this year, with continued funding from state leadership the Research Alliance launched the second Collaborative Research grant cycle and received 49 proposals representing 165 researchers from 48 institutions requesting a total of \$8.5 million for projects in disciplines as diverse as bioengineering, life sciences, computational science, medicine and environmental science. Mr. Kaplan introduced the awardees:

- 1. Novel Approaches to Rescuing Complicated Pregnancies:** A project to develop new ways to treat at-risk pregnancies. Surendra Sharma, WIH and Yow-Pin Lim, Pro Thera Biologics.
- 2. Rapid and Noninvasive Hemoglobin Determination Using Compact Liquid Crystal Optical Sensors:** A collaboration to create an inexpensive, instant test for anemia. Gregory Crawford, Brown University, Gregory Jay, RIH and Selim Suner, RIH
- 3. Acquisition of a State-of-the-Art Isothermal Titration Calorimeter:** Acquisition of a state of the art piece of laboratory equipment to assist researchers better study proteins and their role in disease. Wolfgang Peti, Brown and Bongsup Cho, URI.
- 4. Forensic Computer Vision:** Development of technology to assist police in obtaining higher quality evidence from low resolution video. Michael Black, Brown and Det.Lt. Dennis Pincince, RI State Police.
- 5. Surface Modification of Solid State Nanopores for Genomic Analysis:** An effort to commercialize novel genomic sequencing technology. John Oliver, NabSys and Bernard Munge, Salve Regina University.
- 6. Molecular Assessment of Green Tide Species Richness in Narragansett Bay:** An effort to better understand and manage green algae blooms in Narragansett Bay. Carol Thornber, URI and Brian Wysor, Roger Williams University.
- 7. State-of-the-Art Hearing Aid:** Development of a new platform for improving hearing aids. Kipp Bradford, Bionica, Laurie Heller, Brown and Dave Durfee, Bay Computer.
- 8. Synthesis and Screening of New Selective Estrogen Receptor Modulators:** An effort to develop new treatments for breast cancer that have lower levels of side effects John Williams, RIC, Karen Almedia, RIC, Rebeka Merson, RIC, Matthew Stoner, URI and James Jacob, Organomed.
- 9. Novel Drugs for the Treatment of Congestive Heart Failure and Asthma:** A partnership to develop new drugs for asthma and congestive heart failure. Abraham Kovoov, URI, David Rowley, URI, Bernard Munge, Salve Regina University and Jeremy Celver, CelGen

## **2008 Recommendations**

Dr. Seemann outlined the Council's 2008 recommendations as very important next steps. Growing an innovation economy and creating a more prosperous Rhode Island depends on our ability to continue to make investments year after year. These investments must have both short and long-term potential and enable us to harvest immediate benefits while sowing the seeds for future growth. STAC's 2008 recommendations build upon progress made in 2006 and 2007 and accelerate Rhode Island's transition toward a higher wage 21<sup>st</sup> century innovation economy.

**Recommendation One: Expand the RI Research Alliance** In 2008, the Alliance will seek to expand and formalize its operations. The first step in this process will be the development of an engagement plan that deepens support for the Alliance among participating institutions and defines new opportunities for collaboration. In addition, STAC will continue with current activities and programs and petition the state to renew its support for Alliance activities, which includes a \$1.5 million budget allocation in FY09 to support the Collaborative Research Award program. The primary initial goal of the Alliance will be to assess the various research areas that are ripe for collaboration among the major research institutes of the state and to bring greater connectivity to the state's existing collaborative research institutions and programs such as Rhode Island's Experimental Program to Stimulate Competitive Research (EPSCoR) and the National Institutes of Health's Institutional Development Award (IDeA) program. To support this connectivity, the Research Alliance will launch a Collaborative Research Portal. This portal will contain the state's first cataloging of shared equipment and core facilities, a statewide calendar of research-related events, and networking tools to facilitate collaborative grant applications. The portal will also create a new virtual home for the Rhode Island EPSCoR program, creating new capability for sharing information, adding online evaluation and reporting tools, and creating a unified platform for sharing collaborative research success stories and news about emerging opportunities.

**Recommendation Two: Expand the Slater Technology Fund's Incubator Capacity and Relocate Slater's Center for Entrepreneurship and Life Science to Providence's Jewelry District** In addition to providing physical space for new ventures, STAC recommends that Slater use an expanded facility to serve as a locus for entrepreneurship programming such as technology development planning, intellectual property strategies/issues, technology transfer issues, management recruiting, grant-writing strategies, and equity fund-raising. The health and life sciences sector represents one of Rhode Island's most important economic development opportunities to drive high-wage growth. The center will deepen the state's capacity for launching compelling new health and life sciences ventures and improve our ability to develop more sustainable seed stage ventures with substantial commitment to basing and building their business in Rhode Island long term.

**Recommendation Three: Continued Support for STAC** Creating an innovation economy in Rhode Island will require a deliberate, collaborative and sustained effort from Rhode Island's government, business, academic and community leadership. It will also take time. Together with Rhode Island's leaders, STAC will continue to build upon its recommendations each year. Continued support of STAC will accelerate the state's evolution towards an innovation economy that is nationally and globally competitive and better prepared to meet the needs of its citizens. We are making progress but must not lose momentum.

**Adjournment**

There being no further business in Public Session, upon a motion duly made by Dr. Alfonso and seconded by Dr. Briant, the meeting was adjourned at 11:50 a.m.

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Christine M.B. Smith  
Secretary